

# Environmental Management Systems



EPA Region 3  
Philadelphia, PA 19103  
EPA 903-F-04-001  
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## Reducing the Negative Environmental Impact from our Facility Operations with an Environmental Management System (EMS)

Environmental Management Systems help businesses, factories, and institutions operate more efficiently and reduce the impact on the environment of their everyday activities. An EMS provides an organization with a proactive, systematic approach for managing the potential environmental consequences of their operations.

Executive Order 13148 states that federal facilities should have an EMS in operation by December 2005. In April 2002, the U. S. Environmental Protection Agency's Mid-Atlantic Regional Office began looking at developing an EMS for its operations at 1650 Arch Street in downtown Philadelphia. A multi-disciplinary EMS Team was formed to set and prioritize objectives and targets that will become part of the day-to-day responsibilities of everyone working in the office.

The purpose of our EMS is to prevent pollution before it is produced, reduce energy consumption, reduce water usage, and reduce the amount of waste produced at our facility by conserving, re-using and recycling whenever possible.

Most EMSs are built on a Plan - Do - Check - Act concept.

**PLAN:** identify environmental aspects, establish goals  
**DO:** implement, hold training, make operational controls  
**CHECK:** monitor, audit, do corrective action  
**ACT:** determine progress, review, make needed changes

### Top 8 EMS Concerns for the Operation of the EPA Philadelphia Facility:

1. Use of petroleum in the transportation of employees
2. Use of paper in operation of business machines
3. Waste generated from the transportation of our employees
4. Use of electricity in operation of computers
5. Use of electricity in illumination of office space
6. Use of electricity in operation of business machines
7. Use of paper in the production of reports and documents
8. Use of electricity for air conditioning and ventilation

[www.epa.gov/region3/ems](http://www.epa.gov/region3/ems)

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## Region 3 Employees Managing for Sustainability



### Facility Facts

1300 employees ~ 93% use mass transit to commute

300,000 sq. ft. of office and storage space

~ 2,400,000 kWh electricity/year

10 million sheets of paper/year

58 vehicles travel 900,000 miles and use 45,000 gallons of gas/year

#### Photo Credits:

p.1 (power plant) - U.S. Fish & Wildlife Service

p.1 (logging) - U.S. Department of Agriculture

All others - U.S. Environmental Protection Agency

## What are Our Current EMS Objectives?

### By the end of September 2005:

- Reduce gasoline use by our vehicles by 10%.
- Reduce our estimated electricity usage by 20%.
- Reduce paper use by 30%.

## What We've Already Accomplished

- Reduced paper consumption by almost 30%, saving \$1500 each month.
- Reduced estimated electricity usage by 135,000 kWh/yr by installing the monitor sleep mode.

## What Comes Next?

- Be one of the first EPA offices to be:  
EO 13148 certified EMS  
ISO 14004 certified EMS
- Purchase new energy-efficient double-sided printers.
- Purchase 4 new hybrid cars.

Every employee in our office has a role in the success or failure of our EMS by the way they perform their day-to-day activities in our office. This is why we have launched two awareness training programs and will continue to send reminder emails on our EMS. Turning off lights and computers, avoiding making copies (or at least using both sides of each piece of paper), properly maintaining our vehicles, and car pooling are all small measures that are magnified by the approximately 1300 EPA personnel, Senior Environmental Employees, Interns, Students and Contractors in our Philadelphia office. At EPA you can make a difference not only in what you do every day, but how you do it.

At the EPA Mid-Atlantic Region 3 office ...

All systems are **green!**



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